



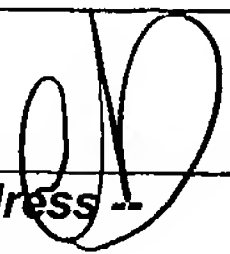
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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/707,731 | 01/07/2004 | Lawrence J. Cook | 66026-0003 | 1730 |
| 10291 | 7590 | 12/14/2004 | EXAMINER | |
| RADER, FISHMAN & GRAUER PLLC 39533 WOODWARD AVENUE SUITE 140 BLOOMFIELD HILLS, MI 48304-0610 | | | KOCH, GEORGE R | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1734 | |

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------|
| Office Action Summary | Application No. 10/707,731 | Applicant(s) COOK, LAWRENCE J. | |
| | Examiner George R. Koch III | Art Unit 1734 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group II, claims 12-18 in the reply filed on 10/21/2004 is acknowledged. The traversal is on the ground(s) that there is no search and examination burden. This is not found persuasive because there is a search and examination burden, since the two inventions are classified separately. The search for the apparatus would require additional subclass searches, increasing the burden on the Patent Office. In addition, the examination would require a different prosecution, imposing another burden on the Patent Office.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 12-14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomesko (US 4,502,909) in view of Yealy (US Patent 4,140,569).

Tomesko discloses assembly first and second member comprising the steps of providing an apparatus that includes first independently extendible member (item 18) and third independently extendible members (item 78), and a dispenser (item 64) operatively connected to the third independently extendible member. Tomesko discloses inserting the first and second members into assembly fixtures (items 20), orienting the dispenser about the first member (see Figures 3-6), dispensing an adhesive about the first member, retracting the dispenser, aligning the first and second members, and applying compression to the first and second members.

Tomesko differs in that it lacks a structure analogous to the second independently extendible member and methods associated with that extendible member. However, Yealy discloses the use of three extendible members (138, 168 and 124 - see figure 4) for manipulation and compressing bonding. Such additional members additional manipulation of the substrates, and would enable more accurate positioning. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized 3 independently extendible members in order to achieve better positioning and control over the members.

As to claims 13, Tomesko discloses a pneumatic control system (see Figures 7a-7b and columns 9-13) for controlling the extendible members.

As to claim 14, official notice is taken that it is well known and conventional to include a pneumatic timer in order to control the duration of the compressing step. Such a timer would ensure that the members are sufficiently compressed in order to bond. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize such a timer in order to achieve control over the pressing duration.

As to claim 16, Tomesko discloses that the control signals can be "electrical, air, or hydraulic" (see column 5, lines 65-68). Thus Tomesko discloses hydraulics.

As to claim 17, Tomesko and Yealy disclose retracting various extendable members after compressing.

As to claim 18, the bonding method of Tomesko is pneumatic (or hydraulic) and thus compression is minimized beforehand.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomesko and Yealy as applied to claim 12 above, and further in view of Young (US 4,268,342).

Tomesko and Yealy do not suggest using a mandrel for support. Tomesko and Yealy disclose holding structures such as vacuum grips.

However, Young suggests utilizing mandrels (items 54) in conjunction with a bonding method that puts a first member onto a hollow second member. One in the art

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would immediately appreciate that the mandrel enables accurate positioning of the substrate by support the substrate from within. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such a mandrel in order to achieve accurate positioning of one substrate.

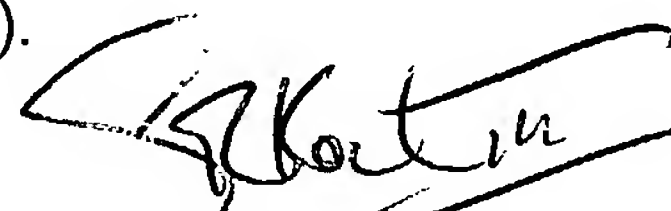
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-866-377-8642 and giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



George R. Koch III
Patent Examiner
Art Unit 1734

GRK
12/12/2004